

Claims

What is claimed is:

1. A system for exploiting power from a pressurized gas reservoir comprising:
 - 5 means adapted for receiving gas at that is pressurized at a first pressure level from a first portion of an associated gas reservoir system;
 - means adapted for directing the pressurized gas to a turbine so as to induce motion thereof;
 - a generator, mechanically coupled to the turbine, the generator
 - 10 including means for generating an electrical current induced from motion of the turbine;
 - means adapted for directing the gas from the turbine, after passage therethrough, to a second portion of the associated gas reservoir system at a secondary pressure level less than that of the first associated gas reservoir; and
 - 15 means adapted for using at least a portion of the electrical current to drive an associated compressor, which compressor includes means for increasing the secondary pressure level.
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2. The system for exploiting power from a pressurized gas reservoir of
20 Claim 1, further comprising:
 - means adapted for directing gas at the secondary pressure level to an associated combustion generator so as to generate additional electrical current from combustion thereof; and
 - means adapted for directing the additional electrical current to the
25 compressor so as to further increase the secondary pressure level.
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3. The system for exploiting power from a pressurized gas reservoir of
Claim 2, wherein the further increase of the secondary pressure level is at least that of
the first pressure level.
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4. The system for exploiting power from a pressurized gas reservoir of
Claim 3 wherein the first and second portions of the gas reservoir system are in direct mutual fluid communication.

5. A method for exploiting power from a pressurized gas reservoir comprising the steps of:

receiving gas at that is pressurized at a first pressure level from a first portion of an associated gas reservoir system;

5 directing the pressurized gas to a turbine so as to induce motion thereof;

generating, at a generator mechanically coupled to the turbine, an electrical current induced from motion of the turbine;

10 directing the gas from the turbine, after passage therethrough, to a second portion of the associated gas reservoir system at a secondary pressure level less than that of the first associated gas reservoir; and

15 using at least a portion of the electrical current to drive an associated compressor, which compressor includes means for increasing the secondary pressure level.

16 6. The method for exploiting power from a pressurized gas reservoir of Claim 5, further comprising the steps of:

directing gas at the secondary pressure level to an associated combustion generator so as to generate additional electrical current from combustion thereof; and

20 directing the additional electrical current to the compressor so as to further increase the secondary pressure level.

25 7. The method for exploiting power from a pressurized gas reservoir of Claim 7, wherein the further increase of the secondary pressure level is at least that of the first pressure level.

30 8. The method for exploiting power from a pressurized gas reservoir of Claim 7 wherein the first and second portions of the gas reservoir system are in direct mutual fluid communication.